



MEDSCOPE

WP2 – Processes and Sources of Predictability

T2.2 – Teleconnections with low-latitudes

J. García-Serrano (BSC)

(lead: BSC; partners: CMCC, CNR, MF)

(i) Comprehensive assessment of tropical-extratropical teleconnection dynamics simulated and predicted by EUROSIP and NMME

BSC ~ ENSO/tropical Pacific (*linked to DANAE project*)

CNR ~ tropical Indian Ocean

CMCC ~ modulation of interannual teleconnections

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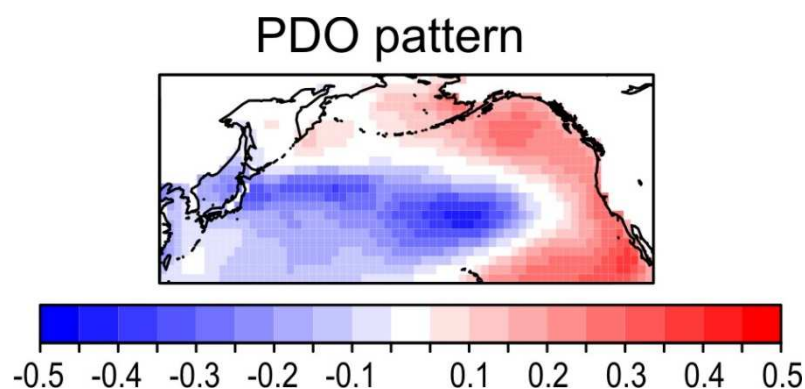
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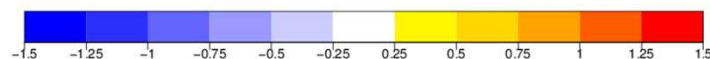
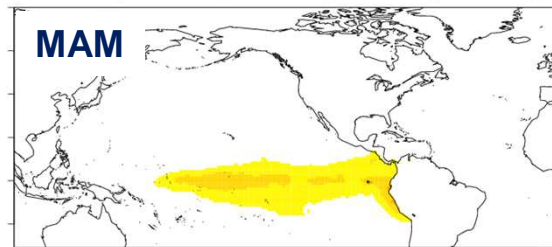
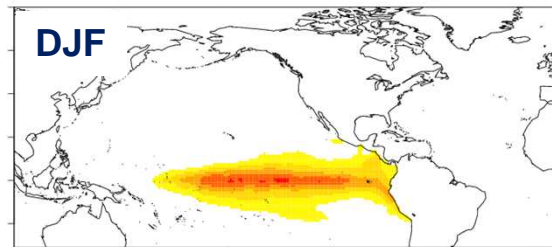
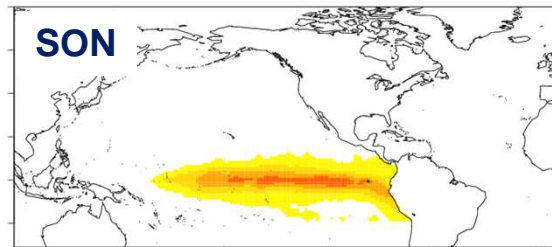
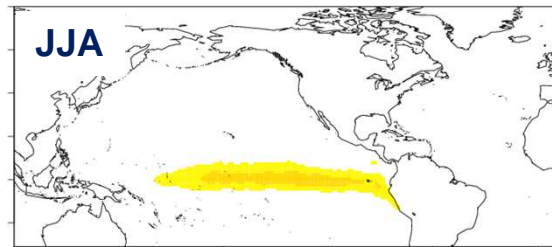


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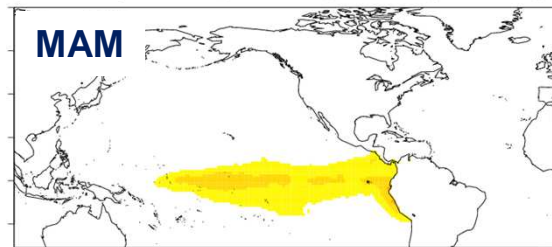
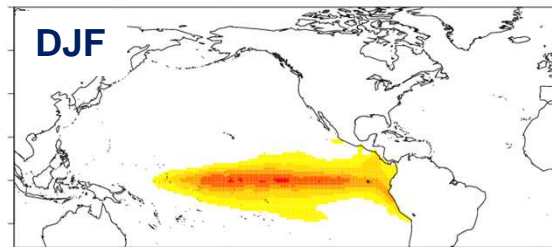
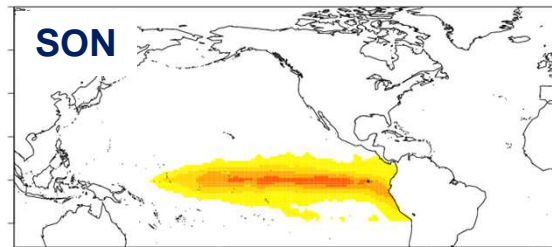
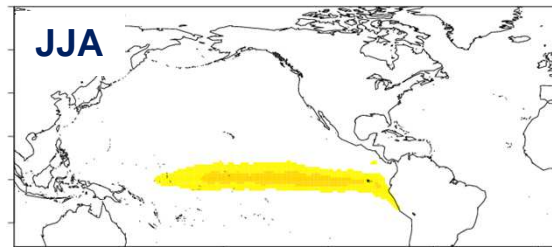
SENSITIVITY EXPERIMENTS

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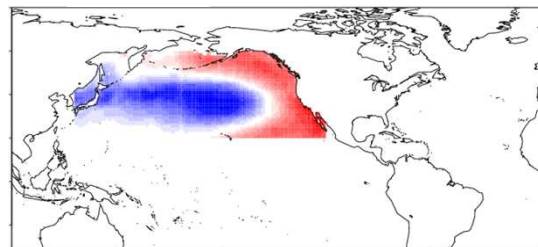


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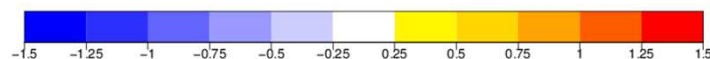
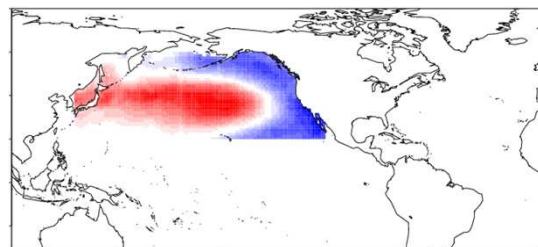


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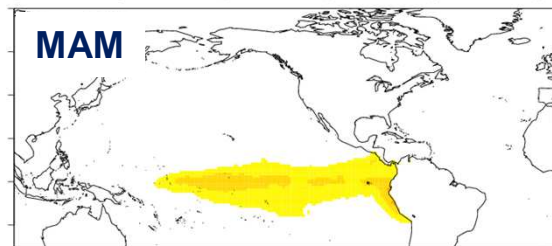
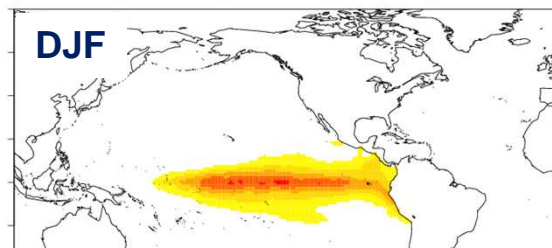
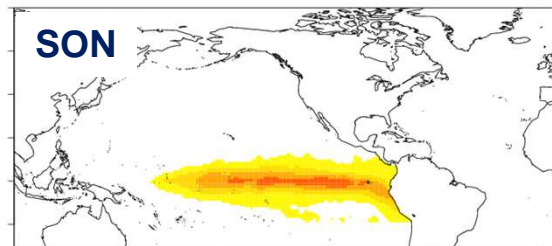
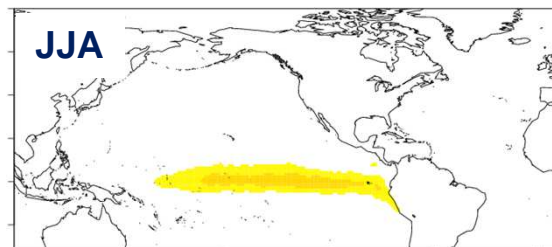
PDO+



PDO-

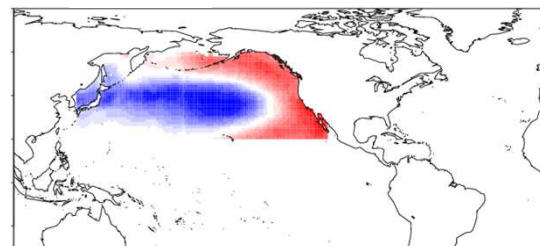


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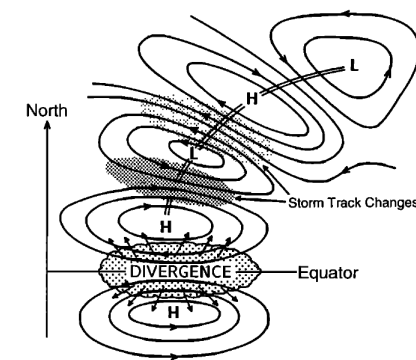
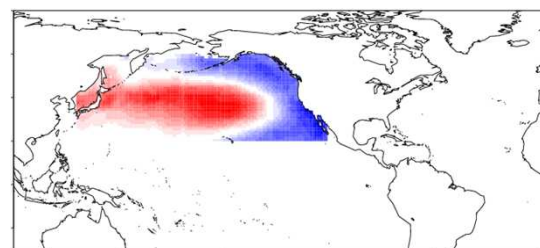


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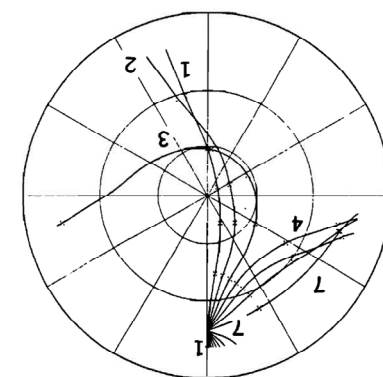
PDO+



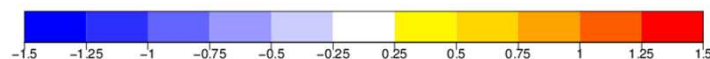
PDO-



(Trenberth et al. 1998, JGR)



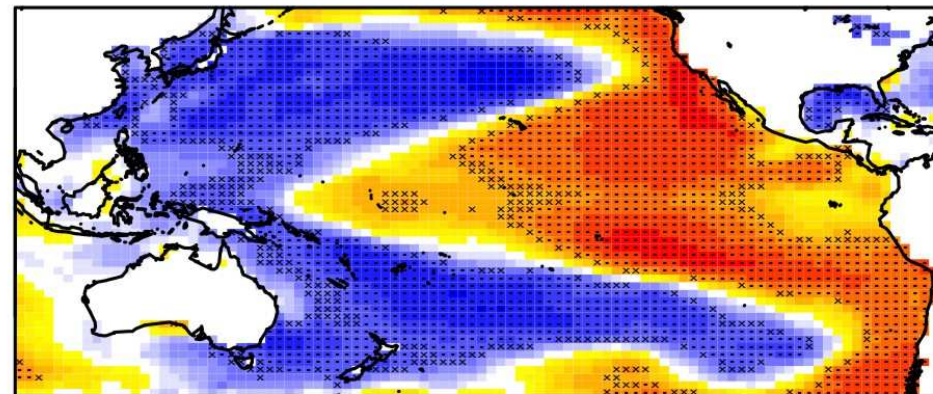
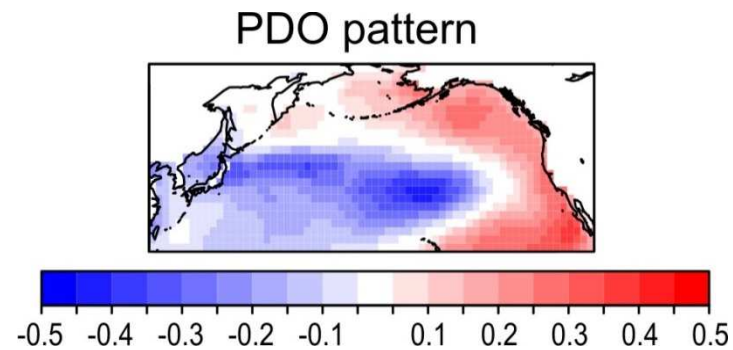
(Hoskins and Karoly 1981, JAS)



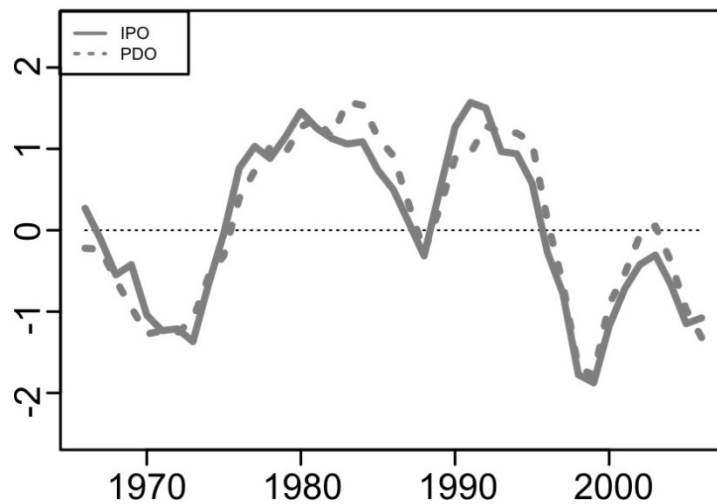
DISCUSSION on T2.2:

- adding stochastic perturbation to ENSO in order to explore intra-event variability
(e.g. Batté and Doblas-Reyes 2015)
- ensemble comparable to forecast systems -> 30-50 members
- integration 15 months: from June (developing phase) to August (decaying phase)
- El Niño vs La Niña, in order to explore non-linearities
- ...

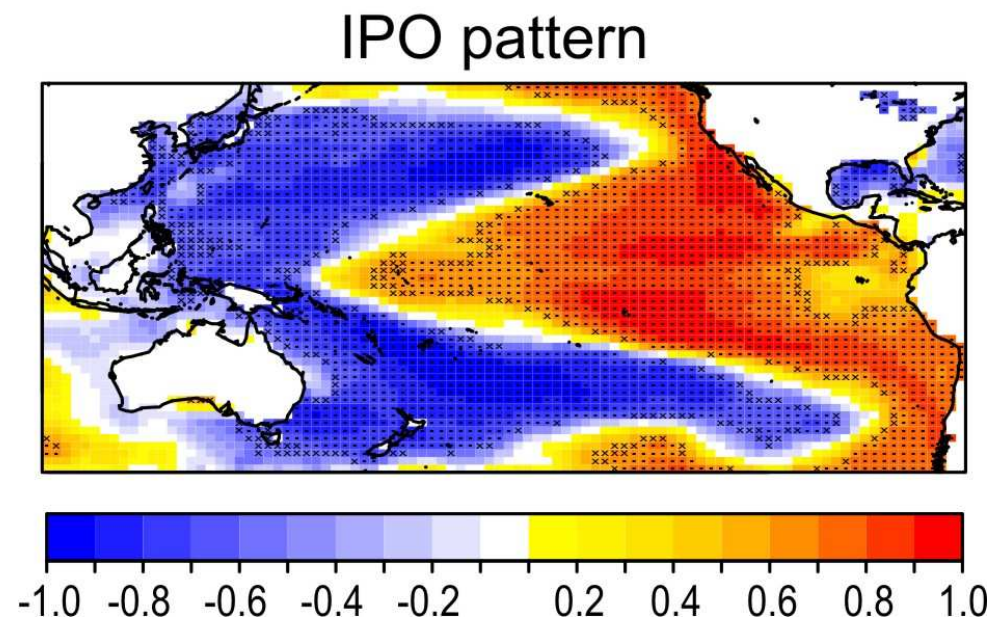
PDO x SST



PDO/IPO 1966/69-2006/09



$r=0.96$



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SENSITIVITY EXPERIMENTS

ENSO teleconnection

CTL

ENSO

ENSO/PDO+

ENSO/PDO-

PDO impact on mean-flow

PDO+

PDO-

